

IN THE CLAIMS:

The following listing of claims replaces all previous listings of claims.

1-10. (Canceled)

11. (Previously Presented) A device for regulating a flow cross section in cooling air inflows of a bulk material grate cooler for cooling hot bulk material having cooling grates for supporting the bulk material, comprising:

a regulator housing integrated into the cooling air inflow below the cooling grate having at least one inlet, at least one outlet and an interior passage between the inlet and outlet for cooling air flow,

a control element comprising an inner body which can be moved translatorily in the passage by the cooling air flow between an at rest position and a fully displaced position,

a device arranged to provide a restoring force against the inner body counter to a direction of the cooling air flow,

the inner body being guided displaceably counter to the action of the restoring force,

the regulator housing being configured such that with increasing displacement inside the regulator housing of the inner body towards the fully displaced position in response to the cooling air flow, a free flow cross section of the regulator housing remaining for the cooling air is reduced, and with decreased displacement of the inner body away from the at rest position, the free flow cross section of the regulator housing for the cooling air is increased.

12. (Previously Presented) The regulating device as claimed in claim 11, wherein the regulator housing inlet comprises at least one opening distributed over at least one of a length, height and around a periphery of the regulator housing, the cooling air flowing into the interior passage of the regulator housing through this opening and flowing out through the outlet into the cooling grate on an upper side of the housing, the displacement of the inner body varying a flow cross section of the opening through which cooling air flows.

13. (Previously Presented) The regulating device as claimed in claim 11, wherein the housing includes a flange which is attached onto a lower side of the cooling grate.

14. (Previously Presented) The regulating device as claimed in claim 12, wherein the at least one cooling air inlet opening of the regulator housing has one of a round and polygonally curved contour.

15. (Previously Presented) The regulating device as claimed in claim 11, wherein the regulator housing has a conical cross-sectional narrowing extending in the cooling air flow direction and the inner body is arranged in the region of the housing conical cross-sectional narrowing, axial displacement of the inner body causing a free flow cross section between a peripheral edge of the inner body and the housing conical cross-sectional narrowing to change.

16. (Previously Presented) The regulating device as claimed in claim 11, wherein a cross section of the regulator housing and a periphery of the inner body are both one of round and polygonal.

17. (Previously Presented) The regulating device as claimed in claim 11, wherein the restoring force device comprises a restoring spring and the restoring force provided by the restoring spring is settable and variable by means of changing the preloading force of the restoring spring.

18. (Previously Presented) The regulating device as claim in claim 17, wherein the regulator housing further comprises a spindle to guide the inner body as it moves between the at rest position and the fully displaced position, and the restoring spring is a helical spring which is arranged around the spindle, the helical spring having an end facing away from the inner body which is supported on a control element, the control element being adjustably threaded onto a threaded end of the spindle to provide for the setting and changing of the spring preloading force.

19. (Previously Presented) The regulating device as claimed in claim 11, wherein the regulator housing further comprises a spindle to guide the inner body as it moves between the at rest position and the fully displaced position.

20. (Previously Presented) The regulating device as claimed in claim 19, wherein the inner body is mounted rotatably at a bush on the regulator housing spindle and is configured as a vane wheel in order to bring about rotation of the inner body as driven by the cooling air flow through the regulator housing.

21. (Previously Presented) The regulating device as claimed in claim 11, wherein a surface of the inner body acted on by the cooling air flow has at least one cutout to permit a minimum cooling air flow through the housing to be maintained when the inner body reaches the fully displaced position.

22. (Previously Presented) The regulating device as claimed in claim 11, wherein the cooling grate has both stationary and moving zones and the cooling air quantity regulating devices arranged below the cooling grate of a bulk material cooler are arranged both zones of the cooling grate.

23. (Previously Presented) A device for regulating a flow cross section in cooling air inflows of a bulk material grate cooler for cooling hot bulk material having cooling grates for supporting the bulk material, comprising:

a regulator housing having at least one inlet, at least one outlet and an interior passage between the inlet and outlet for a cooling air flow,

an inner body positioned in the passage and movable along a guide between an at rest position and fully displaced position by the cooling air flow,

a device arranged to provide a restoring force against the inner body counter to a direction of the cooling air flow,

the regulator housing being configured such that with increasing displacement of the inner body towards the fully displaced position in response to the cooling air flow, a free flow cross section of the regulator housing for the cooling air is reduced, and with decreased displacement of the inner body away from the at rest position, the free flow cross section of the regulator housing for the cooling air is increased.

24. (Currently Amended) A device for regulating a flow cross section in cooling air inflows of a bulk material grate cooler for cooling hot bulk material having cooling grates for supporting the bulk material, comprising:

a regulator housing having at least one inlet, at least one outlet and an interior passage between the inlet and outlet for a cooling air flow,

an inner body positioned in the passage and movable along a guide between an at rest position and fully displaced position by the cooling air flow,

a device arranged to provide a restoring force against the inner body counter to a direction of the cooling air flow,

the regulator housing being configured such that with increasing displacement of the inner body towards the fully displaced position in response to the cooling air flow, a free flow cross section of the regulator housing for the cooling air is reduced, and with decreased displacement of the inner body away from the at rest position, the free flow cross section of the regulator housing for the cooling air is increased. ~~The regulating device as claimed in claim 23,~~ wherein the regulator housing inlet comprises at least one opening distributed over at least one of a length, height and around a periphery of the regulator housing, the cooling air flowing into the interior passage of the regulator housing through this opening and flowing out through the outlet into the cooling grate on an upper side of the housing, the displacement of the inner body varying a flow cross section of the opening through which cooling air flows.

25. (Currently Amended) A device for regulating a flow cross section in cooling air inflows of a bulk material grate cooler for cooling hot bulk material having cooling grates for supporting the bulk material, comprising:

a regulator housing having at least one inlet, at least one outlet and an interior passage between the inlet and outlet for a cooling air flow,

an inner body positioned in the passage and movable along a guide between an at rest position and fully displaced position by the cooling air flow,

a device arranged to provide a restoring force against the inner body counter to a direction of the cooling air flow,

the regulator housing being configured such that with increasing displacement of the inner body towards the fully displaced position in response to the cooling air flow, a free flow cross section of the regulator housing for the cooling air is reduced, and with decreased displacement of the inner body away from the at rest position, the free flow cross section of the regulator housing for the cooling air is increased. ~~The regulating device as claimed in claim 23,~~ wherein the regulator housing has a conical cross-sectional narrowing extending in the cooling air flow direction, and the inner body is arranged in the region of the housing conical cross-sectional narrowing, axial displacement of the inner body causing a free flow cross section between a peripheral edge of the inner body and the housing conical cross-sectional narrowing to change.

26. (Previously Presented) The regulating device as claimed in claim 23, wherein the restoring force device comprises a restoring spring and the restoring force provided by the restoring spring is settable and variable by means of changing the preloading force of the restoring spring.

27. (Previously Presented) The regulating device as claimed in claim 26, wherein the regulator housing further comprises a spindle to guide the inner body as it moves between the at rest position and the fully displaced position, and the restoring spring is a helical spring which arranged around the spindle, the helical spring having an end facing away from the inner body which is supported on a control element, the control element being adjustably

threaded onto a threaded end of the spindle to provide for the setting and changing of the spring preloading force.

28. (Previously Presented) The regulating device as claimed in claim 23, wherein the regulator housing further comprises a spindle to guide the inner body as it moves between the at rest position and the fully displaced position.

29. (Currently Amended) A device for regulating a flow cross section in cooling air inflows of a bulk material grate cooler for cooling hot bulk material having cooling grates for supporting the bulk material, comprising:

_____ a regulator housing having at least one inlet, at least one outlet and an interior passage between the inlet and outlet for a cooling air flow,

_____ an inner body positioned in the passage and movable along a guide between an at rest position and fully displaced position by the cooling air flow,

_____ a device arranged to provide a restoring force against the inner body counter to a direction of the cooling air flow,

_____ the regulator housing being configured such that with increasing displacement of the inner body towards the fully displaced position in response to the cooling air flow, a free flow cross section of the regulator housing for the cooling air is reduced, and with decreased displacement of the inner body away from the at rest position, the free flow cross section of the regulator housing for the cooling air is increased. ~~The regulating device as claimed in claim 23,~~ wherein a surface of the inner body acted on by the cooling air flow has at least one cutout to permit a minimum cooling air flow through the housing to be maintained when the inner body reaches the fully displaced position.